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THE SPIRIT OF CONSERVATISM IN THE LIGHT OF HISTORY

IT is a long, long time since human history began, when a species of apes, closely allied to the gorilla and chimpanzee of the African forests, found itself able to go on its hind legs without the assistance of its fore limbs, leaving these free to become ever more dexterous arms and hands. This new being, with his good, big brain case, found that his ability to do begat a tendency to use his advantages in novel ways. By casting bits of flint into the fire he perceived that they would crack into convenient pieces for cutting and scraping, and so he perhaps made his first tools. What manner of creature he was, still hairy or no, sleeping, mayhap, in trees like his congeners the apes of to-day, is a matter of conjecture. The veteran French archeologist Mortillet guessed that the earliest of the chipped stone tools found in the drift along river banks might be assigned to a time extending back 240,000 years.[1] Suppose we allow some two hundred and fifty thousand years back of that for the ancestors of paleolithic man, the makers of the so-called dawn stones (eoliths), and we arrive at the conclusion that man and his upright forerunners have lived on the earth for at least a half million years. I think that few versed in prehistoric archeology or in biology would feel inclined to reduce this period, although we have no way of determining it with any satisfactory degree of accuracy. Now to judge from the cavern remains, it would appear that no great progress was made except in the skill with which the flints were chipped, in the variety of their forms, and in the decoration of bone objects, until perhaps ten thousand years ago, when the so-called neolithic or ground stone period, with its pottery, its agriculture, and its rude dwellings, comes clearly in sight. It is the neolithic stage in which

[1] De Mortillet, G. et A., "La Préhistoire," Paris s. d. (1900), pp. 663 sq. Archeologists who are unconvinced that the so-called "eoliths" indicate human adaptations do not usually question the fact that man probably long used flint and shells before the fist-hatchet was elaborated.

the American aborigines remained until the arrival of Europeans in the late fifteenth century.

These facts about man's past have only recently been discovered and have not as yet so fundamentally revolutionized our thought as they should and will. Lyell's famous book on "The Antiquity of Man," which first brought home the truth to intelligent English readers, was published in 1863, the year that I was born. I venture to associate these two events, not on account of their parity in importance, but to emphasize the startling fact that it is only since my appearance on the earth that any considerable number of persons have even suspected the great age of the human species. It is true that Augustine found it necessary, in order to secure precedence for the Hebrew prophets, to refute the "lying vanity" of certain authors who maintained that the Egyptians had been carrying on their astronomical observations for no less than a hundred thousand years. How was this possible, he scornfully asks, when not six thousand years had elapsed since the creation of the first man?[2] This estimate of the great church father was somewhat reduced by an English prelate, Archbishop Usher, in the time of Cromwell. With laudable precision he assigned to Friday, October 28, 4004 B.C., the creation of all the terrestrial animals, the appearance of Adam, who, wholly inexperienced as he was, was called upon to devise a complete zoological nomenclature. Before the close of the day Eve was created to solace his loneliness, and the nuptials, duly performed, constituted the last act of the first working week.[3] Although some thoughtful philosophers and theologians of the early church had expressed doubts as to the literal truth of this story, Archbishop Usher's exactness found favor in the eyes of Protestants in the seventeenth century, and it was left for Darwin, Lyell, Huxley, and the anthropologists fundamentally to readjust our historical perspective, not half a century since.

In order to understand the light which the discovery of the vast age of mankind casts on our present position, our relation to the past, our hopes for the future, let us borrow, with some modifications, an ingenious device for illustrating modern historical perspective.[4] Let us imagine that the whole history of mankind were crowded into

[2] "De Civatate Dei," ed. Dombart (Teubner edition), lib. XVIII., cap. 40: "De Aegyptiorum mendacissima vanitate, quae antiquitati scientiae suae centum milia ascribit annorum."

[3] "Annales veteris Testamenti a prima mundi origine deducti," London, 1651, p. 1.

[4] One of Haeckel's students, Heinrich Schmidt, seems to have first hit upon this method of representing "cosmological perspective." See Lester F. Ward, "Pure Sociology," 1907, p. 38, note.

twelve hours, and that we are living at noon of the long human day. Let us, in the interest of moderation and convenient reckoning, assume that man has been upright and engaged in seeking out inventions for only two hundred and forty thousand years. Each hour on our clock will represent twenty thousand years, each minute three hundred and thirty-three and a third years. For over eleven and a half hours there is nothing to record. We know of no persons or events; we only infer that man was on the earth, for we find his stone tools, bits of his pottery, and some of his pictures of mammoths and bison. At twenty minutes before twelve do the earliest vestiges of Egyptian and Babylonian civilization begin to appear. The Greek literature, philosophy, and science, to which we owe so much, are not seven minutes old. At one minute before twelve Lord Bacon wrote his "Advancement of Learning," to which we shall recur presently, and not half a minute has elapsed since man first began to use the steam-engine to do his work for him. There is, I think, nothing delusive about this reduced scale of things. It is much easier for us to handle and speculate upon than the life-sized picture, which so transcends our experience that we can not grasp it.

Two reflections are obvious: In the first place, those whom we call the ancients—Thales, Pythagoras, Socrates, Plato, Aristotle, Hipparchus, Lucretius—are really our contemporaries. However remote they may have seemed on Archbishop Usher's plan of the past, they now belong to our own age. We have no reason whatever to suppose that their minds were better or worse than ours, except in point of knowledge, which has been accumulating since their day. In the second place, we are struck by the fact that man's progress was at first shockingly slow, well-nigh imperceptible for tens of thousands of years, but that it tends to increase in rapidity with an ever-accelerating tempo. Our forefathers, the drift men, may have satisfied themselves for a hundred thousand years with a single stone implement, the so-called *coup de poing,* or fist-hatchet, used, as Sir John Lubbock surmises, for as many purposes as a boy's jack-knife. In time they learned to make scrapers, borers, arrow heads, harpoon points and rude needles of flint and bone. But it was scarcely more than half an hour before twelve by our clock that they can be shown to have invented pottery and become the possessors of herds. The use of bronze and iron is much more recent. They still had a pious devotion to the venerable stone hatchet, which the priests appear to have continued to use to slay their victims after the metals began to be used.

The Greeks were the first of all peoples, so far as we know, to use their minds freely. They unquestionably demonstrated the capacity of our intellects in ethics, metaphysics, logic, and mathematics, but

the incalculable importance of the common things about them escaped them in the main. Aristotle seems to have conceived that all the practical arts had been discovered. He was willing that the slaves should be left to carry them on, while the philosophers reasoned on the ideals of a contemplative life, on the good, the true, and the beautiful. Doubtless some advance was suggested in what we should call applied science, especially at Alexandria, but conditions were unpropitious, and mankind had no better ways of meeting his practical needs in Roman times than he had before Aristotle summed up all the achievements of the preceding Greek thinkers. The great Christian fathers, Jerome, Augustine, Ambrose, if they did not think material things absolutely bad, at least had no interest in them.[5] Their gaze was fixed on the relations of the soul to God. This transcended knowledge. Their contemporaries, the neo-Platonists, maintained that the highest truth came through intuition. Reason could reveal at best only unimportant matters. Both neo-Platonists and Christians were far more interested in miracles and various magical and sacramental methods of promoting man's heavenly interests than in a study of God's world. It was with this heritage that the Middle Ages began. A great part of what had been known in the fathers' time was forgotten. The text-books handed down a little Greek knowledge, half understood and mixed with incredible errors. The world was at best a sort of gigantic allegory. The minerals possessed moral and magical virtues, rather than chemical and physical. The alleged habits of the lion recalled the death and resurrection of Christ, and those of the wren illustrated our dependence on the past. With the rediscovery of Aristotle's works, which were prayerfully studied in the universities in the thirteenth century and elaborately explained and interpreted by the great Dominican friars Albert the Great and Thomas Aquinas, a new barrier was erected to the fruitful study of nature and the application of knowledge to man's material welfare. All of Aristotle's mistakes became sanctified as well as all of the mistakes of his new interpreters.

Roger Bacon, the first person, so far as we know, to express an unbounded confidence in the possibilities of experimental science and its usefulness, impatiently declared that it would be far better if all the works of Aristotle were destroyed than that the universities should be engaged in attempting to get at the sense of the bad Latin translations upon which they were dependent. Aristotle, he concedes, certainly knew a great deal, but at best he only planted the tree of knowledge, and it had still many branches to put forth.

[5] Henry Osborn Taylor, "The Medieval Mind," 1911, Ch. IV.

"If we mortals could continue to live for countless centuries, we could never hope to reach full and complete knowledge of all that is to be known." Bacon held that the intelligent man of science should acquaint himself with the simple, homely things that farmers and old women know about. While in many ways the victim of his age, Roger Bacon, a little over six hundred years ago, gave first expression to the promise of man's happiness that lay in a study of plain material things. Experimental science,[6] he prophesied, would enable men to move ships without rowers, carriages might be propelled at an incredible speed without animals to draw them, flying machines could be devised to navigate the air like birds, and bridges might be constructed ingeniously to span rivers without supports.[7]

These tentative suggestions came about two minutes before twelve. But a minute more was required before the expostulations of Roger Bacon were really heeded. The leaders of Protestantism had no heart in what we call progress. Luther decried reason as a "pretty harlot" who would blind us to the great truths God had revealed in the Bible. Melanchthon reedited with enthusiastic approval an ancient astrology. Calvin declared man innately and unspeakably bad and corrupt, utterly incapable of essentially bettering himself. But Pomponazzi and Giordano Bruno and then Francis Bacon and Descartes, about one minute before twelve, began to batter down the great edifice which the scholastic doctors had reared from the blocks they had appropriated from Aristotle. They pleaded for reason and denounced the senseless respect for tradition. Descartes says, at the close of his immortal treatise on "The Method of Seeking Truth," that he is writing in his own native French instead of the Latin of his Jesuit instructors because he hopes to reach those who use their own good wits instead of relying on old books. A little earlier Lord Bacon published his wonderful "Advancement of Learning," also in his own mother tongue; and at the end of his life his "Novum Organon," in Latin. In both he deals with what he calls "the kingdom of man." Augustine knew only of a kingdom of God and a kingdom of the devil. Lord Bacon first popularizes in his varied and resourceful English the promises of experimental science. He says:

[6] Perhaps the most striking presentation of Bacon's view is to be found in his following words: "Quia licet per tria sciamus, videlicet per auctoritatem, et rationem, et experientiam, tamen auctoritas non sapit nisi detur ejus ratio, nec dat intellectum sed credulitatem; credimus enim auctoritati, sed non propter eam intelligimus. Nec ratio potest scire an sophisma vel demonstratio, nisi conclusionem sciamus experiri per opera." "Compendium studii," Opera Inedita, ed. Brewer, p. 397.

[7] "Epistola Fratris Rogerii Baconis de secretis operibus artis et naturae," *loc. cit.*, pp. 532 sqq.

Antiquity deserveth that reverence, that men should take a stand thereupon and discover what is the best way; but when the discovery is well taken, then to make progression. And to speak truly, *Antiquitas saeculi juventus mundi.* These times are the ancient times, when the world is ancient, and not those which we account ancient *ordine retrogrado*, by a computation backward from ourselves. . . .

Another error that hath also some affinity with the former, is the conceit that of former opinions or sects after variety and examination the best hath still prevailed and suppressed the rest; so that if a man should begin the labor of a new search, he were but like to light upon something formerly rejected, and by rejection brought into oblivion: as if the multitude, or the wisest for the multitude's sake, were not ready to give passage rather to that which is superficial, than to that which is substantial and profound; for the truth is, that time seemeth to be of the nature of a river or stream, which carrieth down to us that which is light and blown up, and sinketh and drowneth that which is weighty and solid. . . .

Another error hath proceeded from too great a reverence and a kind of adoration of the mind and understanding of man; by means whereof, men have withdrawn themselves too much from the contemplation of nature, and the observations of experience, and have tumbled up and down in their own reason and conceits. Upon these intellectualists, which are notwithstanding commonly taken for the most sublime and divine philosophers, Heraclitus gave a just censure, saying, Men sought truth in their own little worlds and not in the great and common world; for they disdain to spell, and so by degrees to read in the volume of God's works. . . .

But the greatest error of all the rest is the mistaking or misplacing of the last or furthest end of knowledge. For men have entered into a desire of learning and knowledge, sometimes upon a natural curiosity and inquisitive appetite; sometimes to entertain their minds with variety and delight; sometimes for ornament and reputation; and sometimes to enable them to victory of wit and contradiction and most times for lucre and profession; and seldom sincerely to give a true account of their gift of reason, to the benefit and use of men; as if there were sought in knowledge a couch whereupon to rest a searching and restless spirit . . . or a shop for profit and sale; and not a rich storehouse for the glory of the Creator and the relief of man's estate.[8]

Bacon thus undermines reverence for the past by pointing out that it rests on a gross misapprehension. Living before us, the ancients could not be expected to be our peers in knowledge or experience. He would have the universities give up worshipping Aristotle and his commentators, cease tumbling up and down in their own metaphysical exaltations, and turn to the study of real things in the world about them. The reason for such study should be, first and foremost, the bright prospect of relieving man's estate. Like Sir Thomas More, Bacon wrote a Utopia, the "New Atlantis." The central feature of his ideal community was a sort of national academy of sciences, a Carnegie Institution, in which all sorts of experiments were carried on with a view to making discoveries which would better

[8] "Advancement of Learning," Bk. I., Ch. V., sections 1–11, *passim.*

the people's lot. Bacon has often been reproached with making no real contributions to science.[9] The criticism is probably just, but his rôle was that of a herald, as he himself recognized. He was the trumpeter who announced the dawn of our own day.

It was in 1605 that the "Advancement of Learning" was first published. And we may safely say that it is scarcely four centuries since the idea of the possibility of indefinite progress through man's own conscious efforts first clearly emerged in the minds of a very few thoughtful persons. Francis Bacon first popularized this great idea —the greatest single idea in the whole history of mankind in the vista of possibilities which it opens before us.

The idea of progress was essentially new. It could only develop in an obviously dynamic social environment and with the growth of historic perspective. The Greek thinkers did not have it in its modern form, so far as we can judge. It is true that Herodotus had a lively appreciation of the general debt of Greek civilization to the Egyptians, and Plato now and then refers to Egypt, but there is no clear comprehension of just what we call progress. Aristotle was keenly aware of the development of Greek philosophy since the Ionian philosophers, but there is nothing to indicate that he thought of mankind as going on indefinitely discovering new truth, and he had none of Lord Bacon's interest in seeing the results of natural science applied to the gradual amelioration of the general lot of mankind. Lucretius, the Epicurean philosopher of Cicero's time, doubtless reflecting earlier Greek speculations, guessed that there had been a stone age, a bronze age, and an iron age.[10] But his was no philosophy of progress. Men might, it is true, understand the universe so far as to perceive that it was the result of a fortuitous concourse of atoms, limited in kinds and obeying certain fixed laws. But the chief significance of this lay in abolishing all fear of the gods and of death. He did not discover in his mechanistic universe any promise of steady human progress. Indeed, he thought that a degeneration was setting in which foreboded the complete dissolution of the universe as we know it. In short the Greek and Roman philosophers would have agreed with the medieval theologians in accepting the stationary character of the civilization with which they were familiar.

[9] For example by Draper, in his "History of the Intellectual Development of Europe."

[10] In the oft-quoted and remarkable lines:

> Arma antiqua manus, ungues, dentesque fuerunt
> Et lapides, et item sylvarum fragmina rami,
> Posterius ferri vis est aerisque reperta;
> Sed prior aeris erat quam ferri cognitus usus.
>
> "De rerum natura," V., 1281 sqq.

Augustine and his disciple, Orosius, gave history a new background, and illustrated God's dealings with man, from the Garden of Eden to the sack of Rome by Alaric; but they knew little or nothing of man's long history and unconscious progress in the past, nor did they anticipate any future improvement, for to the ardent Christian no earthly betterment could compare with the overwhelming issue which awaited man after death, when every one entered into eternal and unchanging bliss or misery.[11] Accordingly, emulation consisted at best until the opening of the seventeenth century in striving to reach standards set by the past. The mere age of an institution or a belief came to be its surest sanction. The present might consider itself fortunate if it was at any point as good as the past. Only with Giordano Bruno and Lord Bacon did the strength of authority and tradition begin to be weakened, in spite of the hostility and consistent opposition of those who believed that they were defending God-given arrangements against the attacks of infidels, free-thinkers, and rationalists.

The process of weakening authority has been very rapid, considering its novel and fundamental character. It went on apace in the eighteenth century. Beccaria, the Italian jurist, who pleaded so eloquently for the revision of the horrible criminal law, foresaw that the conservatives would urge that the practises which he sought to abolish were ratified by a hoary past; he begged them to recollect that the past was after all only an immense sea of errors from which there emerged here and there an obscure truth.[12] During the early years of the French Revolution and under discouraging circumstances, Condorcet wrote his famous treatise on the indefinite perfectibility of man. In it he seeks to trace the steps which humanity has taken in the past toward truth and happiness. "Ces observations," he trusts, "sur ce que l'homme a été, sur ce qu'il est aujourd'hui, conduiront ensuite aux moyens d'assurer et d'accélérer les nouveaux progrès que sa nature lui permet d'espérer encore. Tel est le but de l'ouvrage que j'ai enterpris, et dont le résultat sera de montrer, par le raisonnement et par les faits, qu'il n'a été marqué aucun terme au perfectionnement des facultés humaines, que la perfectibilité de l'homme est réellement indéfinie; que les progrès de cette perfectibilité,

[11] This cursory treatment of a great theme, the origin of the idea of progress, may be supplemented by Laurent, "Etudes sur l'histoire de l'humanité," 1866, Ch. XII., pp. 63 sqq.; Flint, "History of the Philosophy of History," pp. 88 sqq.; and A. Grotenfelt, "Geschichtliche Wertmasstäbe in der Geschichtsphilosophie bei Historikern und im Volksbewusstsein," 1905, pp. 10 sqq. The latter is able to add little to what Laurent and Flint discovered.

[12] Beccaria, "An Essay on Crimes and Punishments," 1788, p. 113.

désormais indépendent de toute puissance qui voudrait arrêter, n'ont d'autre terme que la durée du globe où la nature nous a jetés.'' [13]

These genial speculations tending to turn men's eyes toward the future rather than the past were tremendously reinforced by the scientific discoveries of the nineteenth century. These proved, first, that man was learning a great deal more than any one had ever known before about the world and his place in it. Secondly, he was applying his knowledge in such a way as to make older methods of manufacture and transportation and communication appear very crude and antiquated. Lastly, Darwin, Lyell, Boucher de Perthes, Huxley, G. de Mortillet, Haeckel, and the rest established the fact that man had long before historic times proved himself capable of the most startling progress. He had not only made his way from savagery to civilization, but from the estate of an animal to that of a man. Not only had his ancestors gone on all-fours and lived as the beasts of the field, but their remoter ancestors had mayhap lived in the sea and, as Darwin conjectures, resembled a so-called Ascidian larva, a tadpole-like creature not yet supplied with an unmistakable backbone. Roger Bacon, Francis Bacon, Descartes, Beccaria, Condorcet,—these and many like them had stoutly maintained that man could learn indefinitely more than any of his predecessors had known, and could better his estate indefinitely by the use of this knowledge and the desertion of ancient prejudices and habits. The nineteenth century proved conclusively that he had been learning and had been bettering himself for hundreds of thousands of years. But all this earlier progress had been *unconscious.* For the first time, close upon our own day, progress became an ideal consciously proclaimed and sought. So whatever the progress of man has been during the twelve hours which we assign to him since he became man, it was only at about one minute to twelve *that he came to wish to progress, and still more recently that he came to see that he can voluntarily progress, and that he has progressed.* This appears to me to be the most impressive fact that history reveals, and the most vital in the light that it casts on the conduct of life.

If it be conceded that what we rather vaguely and provisionally call social betterment is coming to be regarded by large numbers of thoughtful persons as the chief interest in this game of life, does not the supreme value of history lie for us to-day in the suggestions that it may give us of what may be called the technique of progress, and ought not those phases of the past especially to engross our attention which bear on this essential point? History has been regularly ap-

[13] ''Esquisse d'un tableau historique des progrès de l'esprit humain,'' 1797, p. 4.

pealed to substantiate the claims of the conservative, but has hitherto usually been neglected by the radical,[14] or impatiently repudiated as the chosen weapon of his enemy. The radical has not yet perceived the overwhelming value to him of a real understanding of the past. It is his weapon by right, and he should snatch it from the hand of the conservative. It has received a far keener edge during the past century, and it is the chief end of this paper to indicate how it can be turned with the most decisive effect on the conservative.

So far as I know, no satisfactory analysis has ever been made of the conservative and radical temperaments. It is commonly assumed that every boy and girl is born into one or the other party, and doubtless as mere animals we differ greatly in our bravery, energy, and hopefulness. But nurture is now seen to be all that separates even the most uncompromising radical from a life far lower than that of any savage that exists on the earth at the present time. Even the recently extinct race of Tasmanians, still in a paleolithic stage of development, represented achievements which it took man long to accumulate. The really uneducated European could neither frame a sentence nor sharpen a stick with a shell. A great part, then, of all that goes to make up the conservative or radical may be deemed the result of education in the broadest sense of that term, including everything that he has got from associating since infancy with civilized companions. I think that the modern anthropologist and psychologist would agree on this point, and every one who allows his mind to play freely over the question must concede that a great part of what has been mistaken for *nature* is really *nurture*, direct and indirect, conscious or, more commonly, wholly unconscious.

Now it has been the constant objection urged by the conservative against a reform of which he disapproved that it involved a change of human nature. He has flattered himself that he knew the chief characteristics of humanity and that, since it was hopeless to alter any of these, a change which seemed to imply such an alteration was obviously impracticable. This argument was long ago met by Montaigne, who declared that one who viewed mother nature in her full majesty and luster might read so general and so constant a variety that any individual and even the whole kingdom in which he happened to live must seem but a pin's point in comparison.[15] But there is a wholly new argument now available. Whether the zoologists are wholly right or no in denying the possibility of the hereditary transmission of acquired traits, there is no reason to think that

[14] The Marxian socialist, of course, uses his version of the past in support of his plan of social amelioration.

[15] "On Education," "Essays," Bk. I., Ch. XXV.

one particle of culture ever gets into the blood of our human species; it all must be transmitted by imitation or inculcation or be lost, as Gabriel Tarde has made clear. We doubtless inherit the aptitudes of our parents, grandparents, and remoter ancestors; but any exercise that they may have made of the faculties which we share with them can not influence us except by example or emulation. *Those things that the radical would alter and the conservative defend are therefore not traits of human nature but artificial achievements of human nurture.* Accordingly, the anthropologist and historian can rule out this fundamental conservative appeal to human nature by showing that the most extraordinary variety has existed and still exists in the habits, institutions, and feelings of various groups of mankind; and the student familiar with the chief results of embryology will see that the conservative has constantly mistaken the artificially acquired and hereditarily non-transmissible for constant and unalterable elements in our native outfit. But, good heavens! if it has proved possible to alter an invertebrate tadpole-like creature living in the sea into an ape-like animal sleeping in a tree, and to transform the ape-like animal into an ingenious flint-chipping artist, able to paint pictures of bison and deer on the walls of a cave; and to derive from the flint-chipper of the stone age a Plato able to tell a most edifying tale about a cave full of conservatives, what becomes of the argument for the fixity of human nature in any important sense?

While it is then highly unscientific and unhistorical to consider the way in which men behave and feel at any particular time as exhibiting the normal and immutable principles of human nature, history and anthropology nevertheless concur in proving that each new generation is indebted to the previous generation for very nearly all that it is and has. This is true of even the most rapidly progressing societies, and there is reason to think that a group of mankind could live indefinitely adhering to an unchanged scheme of civilization so long as they were undisturbed and their environment remained constant. We have seen how very recently the idea that progress is possible has dawned upon a small portion of mankind. The alterations which any people can effect within a half century in its prevailing ideas and institutions and in the range and character of its generally diffused knowledge are necessarily slight when compared with the vast heritage which has gradually been accumulating during hundreds of thousands of years. In order to make the nature and variety of our abject dependence on the past clear, we have only to consider our language, our laws, our political and social institutions, our knowledge and education, our view of this world and the next,

our tastes and the means of gratifying them. On every hand the past dominates and controls us, commonly unconsciously and without protest on our part. We are in the main its willing adherents. The imagination of the most radically-minded can not transcend any great part of the ideas and customs transmitted to him. When once we grasp this truth we shall, according to our mood, humbly congratulate ourselves that, poor pigmies that we are, we are permitted to stand on the giant's shoulders and enjoy an outlook that would be quite hidden from us if we had to trust to our own short legs; or we may restfully chafe at our bonds and, like Prometheus, vainly strive to wrest ourselves from the rock of the past in our eagerness to bring relief to the suffering children of men.

> Es erben sich Gesetz' und Rechte
> Wie eine ew'ge Krankheit fort.

In any case, whether we bless or curse the past, we are inevitably its offspring, and it makes us its own long before we realize it. It is almost all that we can have. The most frantic of us are like a squirrel in his revolving cage.

There is no space here to discuss the general relation of history to the causes and technique of progress, but a word can be said of the effect which our modern outlook should have on our estimate of the conservative mood. Mr. John Morley has given an unpleasant but not inaccurate sketch of the conservative, "with his inexhaustible patience of abuses that only torment others; his apologetic word for beliefs that may not be so precisely true as one might wish, and institutions that are not altogether so useful as some might think possible; his cordiality towards progress and improvement in a general way, and his coldness or antipathy to each progressive proposal in particular; his pigmy hope that life will one day become somewhat better, punily shivering by the side of his gigantic conviction that it might well be infinitely worse." How numerous and how respectable is still the class to which this man belongs! It is made up of clergymen, lawyers, teachers, editors, and successful men of affairs. Doubtless some of them are nervous and apologetic, and try to find reasons to disguise their general opposition to change by taking credit for improvements to which they contribute nothing or by forwarding some minor changes which exhaust their powers of imagination and innovation. But how rarely does one of them fail, when he addresses the young, to utter some warning, some praise of the past, some discouragement to effort and the upward struggle! The conservative is a perfectly explicable and inevitable product of that long, long period before man woke up to the possibility of conscious betterment. He still justifies existing conditions and ideas by

the standards of the past rather than by those of the present or future. He neither vividly realizes how mightily things have advanced in times gone by, nor has he the imagination to see how easily they could be indefinitely bettered, if the temperament which he represents could cease to be cultivated.

Should the conservative be roused to defend himself, having been driven from the protection which his discredited conception of "human nature" formerly offered, he may ask peevishly, "What does progress mean, anyway?" But no one who realizes the relative barbarism of our whole civilization, which contains on a fair appraisal so little to cheer us except promises for the future, will have the patience to formulate any general definition of progress when the most bewildering opportunities for betterment summon us on every side. What can the conservative point to that is not susceptible of improvement?

There is one more solace, perhaps the last, for the hard-pressed conservative. He may heartily agree that much improvement has taken place and claim that he views with deep satisfaction all deliberate and decorous progress, and ascribe to himself the modest and perhaps ungrateful function of acting as a brake which prevents the chariot of progress from rushing headlong down a decline. But is there any reason to suppose that any brake is necessary? Have fiery radicals ever got possession of the reins and actually driven for a time at a break-neck speed? The conservative would find it extremely difficult to cite historic examples, but doubtless the Reign of Terror would occur to him as an instance. This certainly has more plausibility than any other alleged example in the whole recorded history of mankind. But Camille Desmoulins, one of its most amiable victims, threw the blame of the whole affair, with much sound reasoning, on the precious conservatives themselves. And I think that all scholars would agree that the incapable and traitorous Louis XVI. and his runaway nobles, supported by the threats of monarchs of Prussia and Austria, were at the bottom of the whole matter. In any case, as Desmoulins urges, the blood shed in the cause of liberty was as nothing to that spilt by kings and prelates in maintaining their dominion and satisfying their ambitions.[16] We may, therefore, rule out this favorite instance of o'er-rapid change, and safely assume that so far the chariot of progress has always been toiling up a steep incline and that the restraining influence of the conservatives has been worse than useless. Maeterlinck exhorts us never to fear that we shall be drawn too far or too rapidly; and there is certainly nothing in the past or present to justify this fear. On the contrary,

[16] "Vieux Cordelier," No. 3, December, 1793.

as he says, "There are men enough about us whose exclusive duty, whose precise mission, is to extinguish the fires that we kindle." "At every crossway on the road that leads to the future, each progressive spirit is opposed by a thousand men appointed to guard the past. Let us have no fear lest the fairest towers of former days be sufficiently defended. The least that the most timid among us can do is not to add to the immense dead-weight which nature drags along."

History, the whole history of man and of the organic universe, seems now to put the conservative arguments to shame. Indeed it seems to do more; it seems to justify the mystic confidence in the future suggested in Maeterlinck's "Our Social Duty." Perhaps, as he believes, an excess of radicalism is essential to the equilibrium of life. "Let us not say to ourselves," he urges, "that the best truth always lies in moderation, in the decent average. This would perhaps be so if the majority of men did not think on a much lower plane than is needful. That is why it behooves others to think and hope on a higher plane than seems reasonable. The average, the decent moderation of to-day, will be the least human of things tomorrow. At the time of the Spanish Inquisition, the opinion of good sense and of the just medium was certainly that people ought not to burn too large a number of heretics; extreme and unreasonable opinion obviously demanded that they should burn none at all." Here again we may turn to the past for its authenticating testimony. A society without slaves would have been almost incomprehensible to Plato and Aristotle. To the latter, slavery was an inevitable corollary of human society. To Innocent III. a church without graft was a hopeless ideal. To Richelieu a foreign service without bribery was a myth. To Beccaria a criminal procedure without torture and courts without corrupt judges were a dream. It would have seemed preposterous enough to Franklin to forecast a time when a Philadelphian could converse in his home with friends far beyond the Mississippi, or to assert that one day letters would be carried to all parts of the earth for so small a sum that even the poorest would not find the expense an obstacle to communication. But all these hopeless, preposterous dreams have come to pass, and that in a little more than a hundred years.

From these achievements the conservative has hitherto held himself aloof, whether from temperament, ignorance, or despair. Let us exonerate him. He did not know any better. He had not the wit to see that he was a vestige of a long, unenlightened epoch. But history would seem to show that this period of exemption from service is now at an end. It is plain that his theory that human nature

can not be altered is exploded, as well as his belief that a fractious world needs him to apply the brakes.

The conservative has, in short, been victimized by a misunderstood past. The radical has hitherto appealed to the future, but now he can confidently rest his case on past achievement and current success. He can point to what has been done, he can cite what is being done, he can perceive as never before what remains to be done and, lastly, he begins to see, as never before, how it will get done. It has been the chief business of this paper to suggest what has been done. If there were time I might try to show that progress in knowledge and its application for the alleviation of man's estate is more rapid now than ever before. But this scarcely needs formal proof; it is so obvious. A few years ago an eminent French litterateur, Brunetière, declared science bankrupt. This was on the eve of the discoveries in radioactivity which have opened up vistas of possible human readjustments if we could but learn to control and utilize the inexhaustible sources of power that lie within the atom. It was on the eve of the discovery of the functions of the white blood corpuscles, which clears the way for indefinite advance in medicine. Only a poor, discouraged man of letters could think for a moment that science was bankrupt. No one entitled to an opinion on the subject believes that we have made more than a beginning in penetrating the secrets of the organic and inorganic world.

In the fourth canto of the "Inferno" Dante describes the confines of hell. Here he heard sighs which made the eternal air to tremble. These came of the woe felt by multitudes, which were many and great, of infants and of women and men who, although they had lived guiltless lives, were condemned for being born before the true religion had been revealed. They lived without hope. But in the midst of the gloom he beheld a fire that conquered a hemisphere of darkness. Here, in a place open, luminous, and high, people with eyes slow and grave, of great authority in their looks, sat on the greensward, speaking seldom and with soft voices. These were the ancient philosophers, statesmen, military heroes, and men of letters. Neither sad nor glad, they held high discourse, heedless of the wails of infants, unconscious of the horrors of hell which boiled beneath them. They knew nothing of the mountain of purgatorial progress on the other side of the earth, which others were climbing, and heaven was forever inaccessible to them. And why should they regret it—were they not already in the only heaven they were fit for?

As for accomplishing the great reforms that demand our united efforts—the abolition of poverty and disease and war and the promotion of happy and rational lives—the task would seem hopeless enough were it not for the considerations which have been recalled

above. Until very recently the leaders of men have looked backwards for their standards and ideals. The intellectual ancestors of the conservative extend back in an unbroken line to the very beginning of human history. The reformer who appeals to the future is a recent upstart. He belongs to the last half-minute of our historical reckoning. His family is a new one, and its members have often seemed very black sheep to the good old family of conservatives who have found no names too terrible to apply to the Anthony Collinses, the Voltaires and Tom Paines, who now seem so innocent and commonplace in most of their teachings. But it is clear enough to-day that the conscious reformer who appeals to the future is the final product of a progressive order of things. While the conservative sullenly opposed what were in Roger Bacon's time called "suspicious novelties," and condemned changes either as wicked or impracticable, he was himself being gradually left behind in a process of insensible betterment in which he refused consciously to participate. Some mysterious unconscious impulse appears to be a concomitant of natural order. This impulse has always been unsettling the existing conditions and pushing forward, groping after something more elaborate and intricate than what already existed. This vital impulse, *élan vital,* as Bergson calls it, represents the inherent radicalism of nature herself. This power that makes for salutary readjustment, or righteousness in the broadest sense of the term, is no longer a conception confined to poets and dreamers, but must be reckoned with by the most exacting historian and the hardest-headed man of science. We are only just coming to realize that we can cooperate with this innate force of betterment which has so long been silently operating in spite of the respectable lethargy, indifference, and even protests of man himself, the most educable of all its creatures.

At last, perhaps, the long-sought sin against the Holy Ghost has been found; it may be the refusal to cooperate with the vital principle of betterment. History would seem, in short, to condemn the principle of conservatism as a hopeless and wicked anachronism.

If what has been said above is true, or any considerable part of it, is not almost our whole education at fault? We make no consistent effort to cultivate a progressive spirit in our boys and girls. They are not made to realize the responsibility that rests upon them—the exhilaration that comes from ever looking and pressing forward. They are still so largely nurtured upon the abstract and the classical that we scarcely dare yet to bring education into relation with life. The history they are taught brings few or none of the lessons it might. They are reared with too much respect for the past, too little confidence in the future. Does not education become in this

way a mighty barrier cast across the way of progress, rather than a guide-post to betterment? Would not those in charge of education tremble before the possibility of having the young realize fully what has been hinted in this paper? What would happen if the teachers in our schools and colleges, our theological seminaries and law schools should make it their business to emphasize the temporary and provisional character of the instruction that they offer, and urge the students to transcend it as fast as a progressive world enabled them to? The comical nature of such a suggestion shows how far we are still from any general realization and acceptance of the great lesson of history. It opens up a vista of discussion into which I have no desire to enter here, and I will bring this paper to an end by one more admonition. As Maeterlinck urges:

> Let us think of the great invisible ship that carries our human destinies upon eternity. Like the vessels of our confined oceans, she has her sails and her ballast. The fear that she may pitch or roll on leaving the roadstead is no reason for increasing the weight of the ballast by stowing the fair white sails in the depths of the hold. They were not woven to moulder side by side with cobble-stones in the dark. Ballast exists everywhere; all the pebbles of the harbor, all the sand of the beach, will serve for that. But sails are rare and precious things; their place is not in the murk of the well, but amid the light of the tall masts, where they will collect the winds of space.

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SOCIETIES

THE SIXTH ANNUAL MEETING OF THE SOUTHERN SOCIETY FOR PHILOSOPHY AND PSYCHOLOGY

THE sixth annual meeting of the Southern Society for Philosophy and Psychology was held in affiliation with the Southern Educational Association at Chattanooga, Tennessee, on December 27 and 28. The program extended over four sessions, and there were twelve members of the Society in attendance. With but one exception the program was carried out as announced, and all the papers presented evoked a keen interest and profitable discussion. At the business meeting eleven new members were accepted into the Society. Only two reports were presented on philosophical themes, the others being in the nature of pure and applied psychology.

At the first session Professor Turner discussed the place of Locke in the history of thought, pointing out, after a careful analysis of Locke's doctrine, that he is imperfectly interpreted as the founder of sensationalism and the forerunner of Condillac. Locke does not,

in reality, advocate the passive mind, but is rather an empiricist who makes considerable use of intuitionalism, and is thus more akin to Kant in his general position. The place usually accorded to Locke in our histories of thought should therefore more properly be given to Hobbes.

Professor Ogden reported informally on the probable significance of the Pythagorean philosophy in determining the sequence of names which designate the days of the week. These names are, of course, derived from the seven planets of antiquity. Pythagoras conceived these planets as circling about the earth in orbits which duplicate the relations of the seven notes of the musical scale. If one applies to the planets, thus conceived, the same method for determining their relations to each other which is applied in deriving the intervals of the scale, the order of the days is apparent. The sun, which occupies the median position in the system, with three planets beyond, and three planets between it and the earth, is analogous to the *Mese* or tonic of the Greek scale. The remaining order is determined by proceeding from this point alternately downwards and upwards, by intervals of four and five, respectively. This names the planets in the order which denotes the sequence of the days of the week.

The second session was held jointly with the child study department of the Southern Educational Association. Professor Hill spoke for the urgent need of medical inspection of school children and schoolhouses, and also advocated the establishment of state and municipal bureaus of research which should study all matters pertaining to child life, and cooperate with the work of the proposed federal bureau.

A. J. McKelway, for the Southern Educational Association, brought to the attention of the meeting a carefully digested statistical report as to the illiteracy of children in the southern cotton-mill villages, and urged the necessity of passing and enforcing laws for compulsory education and the prohibition of child labor.

Professor Ogden presented a paper in which he advocated greater emphasis on the expressive side of education, particularly oral and written. This he based upon experimental results which have led him to conclude that knowing is a process distinct from and independent of any direct mode of expression. Meaning is not necessarily given adequately in the expression, because of the fact that the mental antecedents are not usually in terms of images which permit of ready representation, but consist, rather, in "thoughts" in relation to which the particular nature of the expression is more or less a matter of indifference.

This session closed with the presidential address, which was delivered by Professor Buchner on the subject of "Learning and Forget-

ting.'' The speaker outlined the history of the problem of learning, and dilated on the vast importance to education of the modern conception made possible by the classic experiments of Ebbinghaus, supplemented by the point of view advanced by genetic and comparative psychology. Learning ''seems to be a species of 'behavior' which mechanizes itself by the elimination of the useless as the organic scale is ascended. It is also a constant mode of psychophysical adjustment in which consciousness plays an increasingly important rôle.''

The second day's sessions were opened by Dr. Dunlap's report on some investigations of rhythm which are under way in the Johns Hopkins psychological laboratory. After criticizing the so-called ''attention wave'' and ''motor'' theories for explaining the phenomena of rhythm, the speaker advanced the opinion that the perception of rhythm is essentially connected with the specious present, in that all members of the group are ''present'' in the observer's consciousness, and become simultaneously ''past'' when the group terminates. He also discussed some of the problems under investigation, together with the technique of the experimentation, apparatus, etc.

Dr. Shepherd was detained at the last moment, and his paper on ''Imitation in Raccoons'' was not received in time to be read.

Dr. Bailey presented for discussion the psychology of the American negro. He pointed out the almost entire lack of any reliable psychological data on the subject, and urged that the psychologist turn his attention to this matter in order that certain much-needed information may be supplied to those who are grappling with the social aspects of the negro problem.

The morning session concluded with a paper on the interpretation of dreams and visions by Mr. Williams. The speaker explained the essential likeness of dream states with certain morbid conditions of the waking consciousness. He opposed Freud's contention that a dream is always the gratification of an unfulfilled desire, and that it is not influenced to any degree by external stimuli. He also maintained that one dreams all the time, when asleep, though the substance of the dream is rapidly forgotten unless brought to mind by an associated idea.

The last session was opened by two reports presented by Professor Hill. In the first the results obtained in some class experiments on mirror drawing were discussed. It was concluded that this sort of test serves as a good introduction to, and illustration of, the learning process, but that it is not sufficiently standardized for demonstrating the transfer of skill acquired by special practise. In his second paper the speaker outlined the results of a comparative

study of children's ideals as obtained from a questionnaire answered by 1,431 children. Although subject to many difficulties of exact interpretation, the results agreed with similar studies in "attesting (*a*) diminution of acquaintance ideals with age; (*b*) increase of public characters as ideals with age; (*c*) predominance of acquaintance ideals with girls; (*d*) small number of ideals from fiction and also (*e*) from religion; (*f*) girls choose more ideals from the opposite sex than do boys."

Mr. Williams's paper on "Precocity" gave a detailed treatment of the methods employed and results achieved in the education of John Stuart Mill and the son of Boris Sidis. In his conclusions he maintained that "proper intellectual education inevitably leads to precocity," and that the prime factor in this is the maintenance of an affective disposition of satisfaction in performing the work prescribed. A set of rather definite rules of procedure were also laid down.

The sessions of the Society were brought to a close by Professor Barnes's report on the pressure curve in voluntary control. His experiments had to do with learning to move the ring finger voluntarily. Comparative results in the pressure curve of the two adjacent fingers were obtained by instructions to relax and to contract the muscles of these fingers. Automatism was acquired more rapidly by the subjects instructed to relax, than by those instructed to contract. The curve was at first irregular, but after inhibition was learned it remained practically constant, being more regular and less in extent for the subjects instructed to relax. "When the hand is supported, pressure seems to be an important element of the process of inhibition during the learning process, but gradually decreases in intensity as automatism is approached."

ROBERT MORRIS OGDEN,
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REVIEWS AND ABSTRACTS OF LITERATURE

A Text-book of Psychology. EDWARD BRADFORD TITCHENER. New York: The Macmillan Company. 1910. Pp. 565.

The present "Text-book" was prompted by the insistence of colleagues, pupils, and publisher that a book be written to take the place of the author's "Outline." The book aims to furnish an example of the "type of texts which emphasize the necessity of an experimental control of introspection, but which seek further to systematize the experimental data and to relate the psychology of the laboratory to that of the pre-experimental and non-experimental treatises."

As compared with the 350-page "Outline," the "Text-book" contains 565 pages, with 149 sections informally organized under general topic headings. Selected references for further reading, absent from the "Outline," are given after each section. The book contains 65 figures, chiefly of laboratory apparatus for the most part neither described nor referred to in the text.

The "Text-book" is not in any way a working over of the "Outline," but seems to be a totally fresh writing up of the fundamental principles of normal introspective psychology from the original point of view, a point of view which emphasizes, as did the "Outline," for the most part, the doctrine of elements and laws of connection, the process character of elements, the analysis of attributes (including clearness), the doctrine of parallelism, the two-level theory of attention, the elementary psychology of affection, the one-dimensional character of feeling, the method of introspection—a fairly consistent body of doctrine which has characterized all the writings of this author.

Yet the order of treatment follows, in a general way, the arrangement of chapters in the "Outline." The discussion of method is omitted because adequate treatment at the present stage is beyond the limit of a text-book. Since the "Text-book" is designed to replace the "Outline," it may be worth while to point out briefly the chief points of difference between the two.

An introductory section discusses the subject-matter, method, and problem of psychology, and adopts parallelism as a working hypothesis. The problem is conceived to be the discovery of mental elements and the laws of their combination. The method is declared to be that of introspection, but introspection in such a sense that "it is not so absurd as at first thought it seems, to say that we require the animal and society and the madman to introspect." Reference to the nervous system is made only for the sake of the "unity and coherence which a strictly descriptive psychology can not achieve."

In the section on sensation the emphasis is on the attributes, which are now quality, intensity, duration, and clearness, instead of the quality, intensity, duration, and extent of the "Outline." There are sensations for which the list is longer. "Vision and cutaneous pressure possess extent; hearing and smell are spaceless; the other cutaneous sensations, organic pressure and pains, and kinesthetic sensations, are endowed with the spatial attribute, although they play parts of varying importance in space perception."

Thirty-four pages are given to vision instead of the five of the "Outline." There is less effort to enumerate qualities for the mere sake of number, and Hering's theory is given prominence. Sound, taste, and smell come in for a clear discussion of 49 pages as compared with the 11 of the "Outline." There are separate sections for cutaneous, kinesthetic, and organic sensations, and for synesthesia. Organic sensations receive unusually complete and careful description and analysis. Less emphasis is placed on the numerical expression of Weber's law. Instead there is a more general discussion of the validity of units of mental measurement.

In the "Outline" the differences between sensation and affection were stressed. In the "Text-book" the emphasis falls on their common ancestry. "The writer holds that there is an elementary affective process, a feeling element, which in our minds is coordinate with sensation and distinguishable from it, but which is nevertheless akin to sensation and is derived from the same source, made out of the same kind of primitive mental material." Affection possesses the attributes of quality, intensity, and duration, but is distinguished from sensation by lack of clearness and by the presence of qualitative opposition. "The resemblance is so great that the two processes are evidently derived from a common mental ancestry; the difference is so great that we have no choice but to rank affection in human psychology as a second type of mental element distinct from sensation." The notion advanced in the "Outline" that the anabolic and katabolic bodily changes give rise to the affective processes is abandoned. The author hazards the guess that the peripheral organs of affection are the free afferent nerve endings not yet developed into specialized sense organs and that pleasantness and unpleasantness might have become sensations if mental development had only been carried further. This is an interesting leap of scientific imagination, and one is tempted to hope that since it has "lived long enough to be mentioned in a text-book," it will not "die and be dissected in the pages of psychological magazines" (see p. 49). The author warns the student, who is constantly being advised against speculation, that this theory of the bodily conditions of affection is simply a guess. Nevertheless four pages are devoted to it.

In the "Outline" attention was discussed as a process of reinforcement or inhibition of an excitation by the explosive discharges of cells in the frontal lobes. In the "Text-book" the situation is much modified. "Attention is identical with sensory clearness." The specific rhythmic reinforcement or inhibition by the frontal lobes as the physiological condition of attention is replaced by such general terms as cortical facilitation and inhibition, and further judgment is suspended until more is known of the physiological mechanism of these processes.

The two-level theory is deliberately expounded in the text, although hidden away in the references for further reading is the confession that the author "has fallen into the common psychological mistake of generalizing his own experience" (p. 302). The "consolation that the multi-level modes of attention were first observed" in the author's own laboratory seems hardly sufficient justification for concealing them from the student.

In place of the long and rather loosely organized chapter on perception and idea in the "Outline," we have here five excellently presented special sections on spatial, temporal, qualitative, and composite perceptions, and the psychology of perception.

Association receives shorter treatment, with less emphasis on formal classification and more on the analysis of the association consciousness. The section on memory and imagination stresses chiefly the introspective content of the memory and imaginative consciousness, and is character-

ized by the ever-present tendency to explain things by "cortical set," the assumption of which is said to outrun by far the experimental evidence.

The paragraphs subsumed under the general title "Action" discuss the reaction experiment in detail, the genesis and classification of action, and will, with a gratifying extension of analysis and introspection to the action consciousness, and with emphasis on the reaction as an end, rather than as a mere means of psychometry. This section seems, however, rather long drawn out, while the whole topic of instinct is dismissed in four paragraphs of fine print.

A conservative and trenchantly written section on emotion emphasizes the need for further introspective work. The section has for its core the exposition, criticism, and modification of the James-Lange theory. The modification points out the importance of affection as an elementary process attaching to simple perceptual material, and as the chief component in the emotion, which is defined as the affective reaction to a total situation. A brief discussion of the sentiments follows, replacing the long chapter on sentiment found in the "Outline."

The recent study of the higher thought processes is recognized in a section of 45 pages, dealing with such topics as conscious attitudes, cortical set, feelings of relation, determining tendencies, the reduction or decay of ideas and emotions, judgment, comparison and discrimination, the self, etc. Every teacher will appreciate the value of such a summary, though all may not agree that the subject is ready for incorporation in standard text-books. The book throughout gives one the impression that the author has great faith in the ultimate explanatory value of "unconscious cortical set" and the "universal law of mental growth and decay." And one senses a certain note of expectancy in the constant tentative introduction of the two ideas into every section dealing with the so-called higher mental processes.

Criticism, in such a review, must be largely confined to the book as a whole. To the structurally minded, whose introductory students are college juniors or seniors, the book will be at once welcome as a class text, and will easily supplant anything else in the field. But it seems to have been written for students much more mature than those for whom the "Outline" was adapted. To those for whom the biological point of view is a desideratum in an introduction to psychology, the text is, nevertheless, admirably suited for reference work; or, on the table of the instructor, it will afford a wholesome check on ultra-biological tendencies. The book will be especially valuable to the advanced student and to the young instructor for its honest attempt at complete systematic treatment, its insistence on verification, and the wealth of elementary fact contained in it.

The author's excuse for not including discussions of the nervous system and sense organs is that the student should get this knowledge from the physiologist, and that the psychologist needs all the time at his disposal for his own science. But a text-book should be adapted to present needs rather than to ideal conditions. As a matter of fact the ordinary student beginning the study of psychology has not yet been provided with

adequate neurological information, and the psychologist usually finds it necessary to devote some of his time to laying this most necessary foundation. A text-book designed for present needs should help the teacher minimize this time. To that end the reviewer feels that nothing would be lost and much gained by the inclusion of cuts of the sense organs, brain, and cord, and the nervous elements, even if the space required should necessitate the omission of such pictures as that of the horse hair and match, the horopter model, Exner's model and Koenig's difference tone apparatus. The mere inclusion of the cuts with simple lettering or brief description would undoubtedly increase the serviceableness of the book for a considerable number of teachers.

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The Reasoning Ability of Children of the Fourth, Fifth, and Sixth Grades. FREDERICK D. BONSER. *Columbia University Contributions to Education,* No. 37.

This monograph is by far the most thorough statistical study of the reasoning ability of children that has been published. The tests used were carefully chosen, care was exercised in giving the tests, the plans for grading the results were well carried out, while every approved method of manipulating the figures so as to show just what the data signify were used.

Tests I. and II. consisted of well-selected arithmetical problems involving reasoning ability with only slight mechanical use of figures. Test III. consisted of incomplete sentences and of sentences involving the use of one or the other of two words, such as "Days are longer (or shorter) in summer than in winter." Test IV. consisted of a number of shorter words whose opposites were to be written. Test V. consisted of a number of statements of reasons from which the children were to select those that seemed good. Test VI. consisted of a number of definitions of simple words from which the pupils were to select those that were good. Test VII. called for the writing of the meaning of two stanzas of poetry.

The children tested were 385 boys and 372 girls of the fourth, fifth, and sixth grades. The general conclusions as summarized by the author follow:

"1. In the progressive development shown in median ability through the grades tested, and in the high group correlations among these tests, it is evident that they are valid measures of several phases of that complex capacity we call reasoning ability.

"2. In the contrasts between grade progress and progress with age, in the generally superior showing made by the younger groups of children of any grade when contrasted with the older pupils of the grade, and in the fairly substantial percentage of pupils from lower grades found in the highest quartile of ability for all, it is shown that native capacity is measured to a high degree by the tests.

"3. In consideration of the rather varied range of information required, as well as the sagacity necessary to resolve the problems, all of the

foregoing differences between grade standings and age standings suggest that these tests are even better measures of intellectual capacity than are the usual factors determining the school grade in which the pupil is placed.

"4. In the general superiority of the boys over the girls in tests I. and II., III., and V., and of the girls over the boys in tests IV., VI., and VII., it is clear that there are real, measurable sex differences, small, to be sure, but no less real, among these more than seven hundred children.

"5. While the variability of the boys is slightly greater than that of the girls in some tests, in other tests the girls are more variable; so that, taken as a whole, the boys are only slightly more variable.

"6. The point of greatest pragmatic significance for the school lies in the implications from the two facts, first, that there are quite substantial percentages from both the lower grade groups and lower age groups who are found in the highest quartile of ability for all; second, that most of the groups of the youngest 25 per cent. in each grade show higher ability than the oldest 25 per cent. and sometimes higher than that of the median ability of the whole grade.

"The highest coefficients (of correlation), as shown by the averages, Table LVIII., are, in their order, that for tests III. and IV., the two forms of controlled association, completing sentences and the opposites, .53; that for tests IV. and V., the opposites and the selection of reasons in one of the tests in selective judgment, .49; that for tests V. and VI., the two tests in selective judgment, .47; and that for tests III. and VII., controlled association and interpretation of the poems, .45. By correction, these would probably all be raised to above .75, those for III. and each of the others approaching 1.00 very closely. Among the lowest of the average coefficients are those of tests III. and VI., controlled association and the second test in selective judgment, .24, and for tests VI. and VII., selective judgment and interpretation of the poems, .24. Relatively, the correlations with spelling are all low, the highest, .25, being with test VII., interpretation of the poems, next in order, .24, that with the mathematical tests, then .22 with III. and .21 with IV., the two forms of controlled association tests. The lowest coefficients for spelling are .09 with test VI., and .12 with test V., the two tests in selective judgment. The highest correlations for spelling are with those tests involving most the linguistic forms of ability, and with the mathematics tests, the lowest with those involving selective judgment. In these facts there may be food for reflection relative to the question of the disciplinary conception of education.

"The best test among those here used for this general ability is test IV., that of the opposites, the next that of the form of selective judgment in test V., and third, tests I.–II., the mathematics tests. The poorest is test VII., the interpretation of the poems.

"Children distributed on the basis of age show a correlation considerably higher than children distributed on the basis of school grade.

"Children extreme in ability, either in the direction of poorness or excellence, show higher correlation than the children of median ability.

"There is slightly higher correlation among boys than among girls in the abilities measured by these tests.

"The results here derived point to the conclusion that the correlations among the abilities here tested are a matter of native capacity rather than the result of training."

It is a matter for deep regret that such a thorough study, involving so many careful mathematical computations, should have been made before increasing the number of children tested in such a way that they would consist of a more typical group. Figures are given for ages from eight to sixteen, but the number of children of each age below ten and above thirteen and a half is too small to justify general conclusions as to changes in reasoning with age, especially when we realize that children of eight and sixteen who are in the grades tested are exceptional rather than normal children. Other studies have indicated, as does this, rhythms of increase in ability with age differing as to time for boys and girls; and if more children had been tested the results here given as to those rhythms might well serve as standards. As it is we are grateful to Dr. Bonser for devising these tests and for the high ideal he has set in the use of statistical methods; but we feel that some of the time spent in calculations was wasted and regret that the conclusions for other ages than from ten to thirteen and a half can not be accepted as reliable until further studies have been made.

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FITCHBURG, MASSACHUSETTS.

History of Medieval Philosophy. M. DE WULF. Third edition. Translated by P. COFFEY. Longmans, Green, & Co. 1909. Pp. xii + 519.

Interest in medieval philosophy, while largely developed through the neo-Thomistic movement in Belgium, England, and elsewhere, is by no means confined to this new-old stream of thought. M. de Wulf's book could not otherwise be now in its third French edition and also translated into English. As the second edition was extensively reviewed, we need call attention here only to the changes found in the third. "The relations between philosophy and theology down to the twelfth century have been reconsidered; also the realist and anti-realist systems of that century and the classification of the theological schools. The divisions of philosophy in the thirteenth century have been modified. A new section has been devoted to the neo-Platonic current of thought, represented mainly by Witelo and Theoderic of Freiburg." It is perhaps worthy of comment that the author gives not a little attention to the extra-philosophical setting of the great medieval systems. Scholastic methods of teaching are described lucidly. The philosophical literature accessible to the scholastics is pretty fully catalogued. And, in his account of the sources of the philosophical Renaissance, M. de Wulf incorporates an interesting page or two on the rise of the universities and the influence of the great mendicant orders on the intellectual life of the day. A criticism of M. de Wulf's interpretations on any of these or other points involves, of course, an evaluation of the whole orthodox Roman attitude—something quite uncalled for here. Waiving all the crucial questions this underlying one

involves, the reviewer finds the volume an admirable specimen of the historian's art. Immense learning and a keen sense of exposition are visible on every page. Cross-references have been worked out at great length, and bibliographies, while not presuming to be exhaustive, cover their respective fields thoroughly. The translator has done his work well. Quarrel as one may with this honestly and openly biased history, one must admit that it supplies information on an obscure, neglected, but rich field of philosophy as no other volume does.

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COLUMBIA UNIVERSITY.

JOURNALS AND NEW BOOKS

REVUE NÉO-SCOLASTIQUE DE PHILOSOPHIE. November, 1910. *Morale thomiste et science des mœurs* (pp. 445–475): S. DEPLOIGE. – Modern sociologists have unconsciously come back to the Thomistic conception of morality. Their moral science + their rational art = the "sciencia practica" of St. Thomas. *Métaphysique thomiste et critique de la connaissance* (pp. 476–509): PIERRE ROUSSELOT. – Like the "new philosophy," Thomistic metaphysics is above all a critique of the category of thing. *La morale et la sociologie* (pp. 510–542): F. PALHORIÈS. – The traditional system of morals rests upon empirical facts from which human reason, by a legitimate and logical process, ascends to the concept of obligation. The new morality, on the other hand, of which Lévy-Brühl is the best known representative, is antiscientific and antimoral. *La philosophie de Jaime Balmès* (pp. 543–572): JUAN ZARAGÜETA. – An exposition of the philosophy of the Spanish philosopher, Jaime Balmès. *Comptes rendus.* Leslie J. Walker, *Theories of Knowledge. Absolutism, Pragmatism, Realism:* FRANCIS AVELING. A. Lang, *Aphoristische Betrachtungen über das Kausalproblem. Grundlinien einer Theorie der Kausalität:* G. SIMONS. A. W. Benn, *The History of English Rationalism in the Nineteenth Century:* ED. JANSSENS. Joseph Fabre, *La pensée moderne. De Luther à Leibniz:* ED. JANSSENS. G. Gentile, *Giordano Bruno nella storia della cultura:* E. J. H. Höffding, *Histoire de la philosophie moderne:* J. LEMAIRE. B. Varisco, *I massimi problemi:* B. NARDI. René Gillouin, *Henri Bergson. Choix de textes avec étude du système philosophique:* C. MATHIEU. Paul Archambault, *Emile Boutroux. Choix de textes avec une étude de l'œuvre:* C. MATHIEU. Paul Gaultier, *La vraie éducation:* G. RYCKMANS. *Chronique philosophique. Sommaire idéologique des ouvrages et revues de philosophie.*

Brown, George. Melanesians and Polynesians: their life-histories described and compared. London: Macmillan and Co., Ltd. 1910. Pp. xv + 451. 12s.

Hodgson, Shadworth H. Some Cardinal Points in Knowledge. (From Proceedings of the British Academy, Vol. V.) London: Henry Frowde, Oxford University Press. 1911. Pp. 61.

NOTES AND NEWS

At the meeting of the Aristotelian Society on April 3 Mr. H. W. Carr read a paper on "The Theory of Psychophysical Parallelism as a Working Hypothesis in Psychology." The nature of the relation of mind and body is a metaphysical problem, but the method and scope of psychology depend on the formulation of the problem. The hypothesis most generally adopted in psychology is that mental phenomena form an independent series concomitant with a series of physical changes in the matter of the brain, and that there is a point-to-point correspondence between the two series. The hypothesis was considered as a possible description of fact apart from any metaphysical explanation, and it was held that it involves a direct logical contradiction from whatever point of view it is considered. To an idealist it is impossible, because for idealism there is no independent physical thing to run parallel with the mental existence; and to a realist it is equally impossible, because the independent reality which realism regards as essential to perception is not the physical movement in the brain.—*The Athenæum.*

The Committee of the American Philosophical Association on Early American Philosophers reports that the Columbia University Press will issue this year a reprint of President Samuel Johnson's "Elements of Philosophy," under the editorship of Professor F. J. E. Woodbridge; that the Princeton University Press will issue also this year a uniform reprint of President John Witherspoon's "Lectures on Moral Philosophy," under the editorship of Professor V. L. Collins; and that the Publication Committee of the University of Pennsylvania has approved the reprinting of Dr. Benjamin Rush's "Diseases of the Mind."

The New York Branch of the American Psychological Association met on April 24 in conjunction with the Section of Anthropology and Psychology of the New York Academy of Sciences. The program included two sessions, one in the afternoon at Columbia University and one in the evening at the American Museum of Natural History. The members dined at the Faculty Club of Columbia University. A fuller notice of this meeting will appear in a later number of the JOURNAL.

The Walter Channing Cabot fellowship, which has just been awarded to Professor Josiah Royce, is supported by a fund of $50,000, given to Harvard University in 1905 to provide "an additional remuneration to some distinguished man in recognition of his eminence."

It is reported that Trinity College has given Cambridge University the sum of £1,000 to be used toward the erection of buildings for physiology and for experimental psychology.

Longmans will publish this month "Some Problems in Philosophy: being an Uncompleted Introduction to Philosophy," by William James.

Part I. (two volumes) of the third edition of "The Golden Bough" has been issued by Macmillan and Co.